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Claims:

Claim 1, (currently amended):

1. A method enabling the precise creation, fitting, and reproduction of objects, comprising the steps of: [[;]]

    1) defining a single 2-dimensional profile representation of an object;

    2) measuring values from the object [[determining by measurement]] and defining a sufficient [[finite]] number of parametric values, comprising angular dimensions and/or linear dimensions and/or point coordinates, wherein the sufficient [[to]] number of parametric values characterize how the object changes in cross-section in 3-dimensional space with respect to the 2-dimensional profile of step 1;

    3) converting the profile and parametric values into an electronic format suitable for input to computer aided design and manufacturing (CAD/CAM) programs;

    4) creating a virtual CAD model from the profile and parametric values;

    5) calculating Numerical Control (NC) motion commands from the CAD model using CAM technology;

    6) processing an object using Computer Numerical Controlled (CNC) machine; and,

    7) transmitting data throughout the process, enabling theses steps to be conducted at any combination of geographic locations.

Claim 2, (previously presented):

2. The method of claim 1, wherein step 1 comprises a tracing technique to define the 2-dimensional profile.

Claim 3, (previously presented):

3. The method of claim 1, wherein step 1 comprises a digitizing device to define the 2-dimensional profile.

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Claim 4, (previously presented):

4. The method of claim 1, wherein step 1 comprises an optical scanning process to define the 2-dimensional profile.

Claim 5, (previously presented):

5. The method of claim 1, wherein step 1 comprises exposure to a reactive chemical media, to define the 2-dimensional profile.

Claim 6, rewrite as Claim 6 (currently amended) as follows:

6. The method of claim 1, wherein step 1 and step 2 comprise a digitizing device to define the 2-dimensional profile and 3-dimensional parametric values.

Claim 7, (previously presented):

7. The method of claim 1, wherein step 2 is facilitated by means of printed measuring utensils.

Claim 8, (previously presented):

8. The method of claim 1, wherein step 1 and step 2 are facilitated by means of integrated instruction and data acquisition form.

Claim 9, (previously presented):

9. The method of claim 1, wherein step 3 comprises optical scanning technology.

Claim 10, (currently amended):

10. The method of claim 1, wherein step 6 comprises a CNC controlled machine with a rotating tool.

Claim 11, (currently amended):

11. The method of claim 1, wherein step 6 comprises a CNC controlled machine with a cutting jet.

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Claim 12, (currently amended):

12. The method of claim 1, wherein step 6 comprises a CNC controlled machine with a cutting wire.

Claim 13, (currently amended):

13. The method of claim 1, wherein step 6 comprises a CNC controlled machine with a cutting laser.

Claim 14, (currently amended):

14. The method of claim 1, wherein step 6 comprises a CNC controlled Rapid Prototyping machine capable of directly producing a part.

Claim 15, (previously presented):

15. The method of claim 1, wherein step 7 comprises data transmitted electronically.

Claim 16, (previously presented):

16. The method of claim 1, wherein step 7 comprises data transmitted over the Internet.

Claim 17, (currently amended):

17. The method of claim 1, wherein any combination of steps 1-7 may be combined consolidated and/or automated.

Claim 18, (currently amended):

18. An apparatus enabling the precise creation, fitting, and reproduction of objects, comprising:[[;]]

   1) a means of defining a 2-dimensional profile representation of an object's edges;

   2) a means of measuring values from the object [[determining by measurement]] and defining a sufficient [[finite]] number of parametric values, comprising angular dimensions and/or linear dimensions and/or point coordinates, wherein the sufficient [[to]] number of parametric values characterize how the object changes

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in cross-section in 3-dimensional space with respect to the 2-dimensional profile of step 1;

3) a means of converting the profile and parametric values into an electronic format suitable for input to computer aided design and manufacturing (CAD/CAM) programs;

4) a means of creating a virtual CAD model from the profile and parametric values;

5) a means of calculating Numerical Control (NC) motion commands from the CAD model using CAM technology;

6) a means of processing an object using Computer Numerical Controlled (CNC) manufacturing technology;

and,

7) a means of transmitting data throughout the process enabling theses steps to be conducted at any combination of geographic locations.